



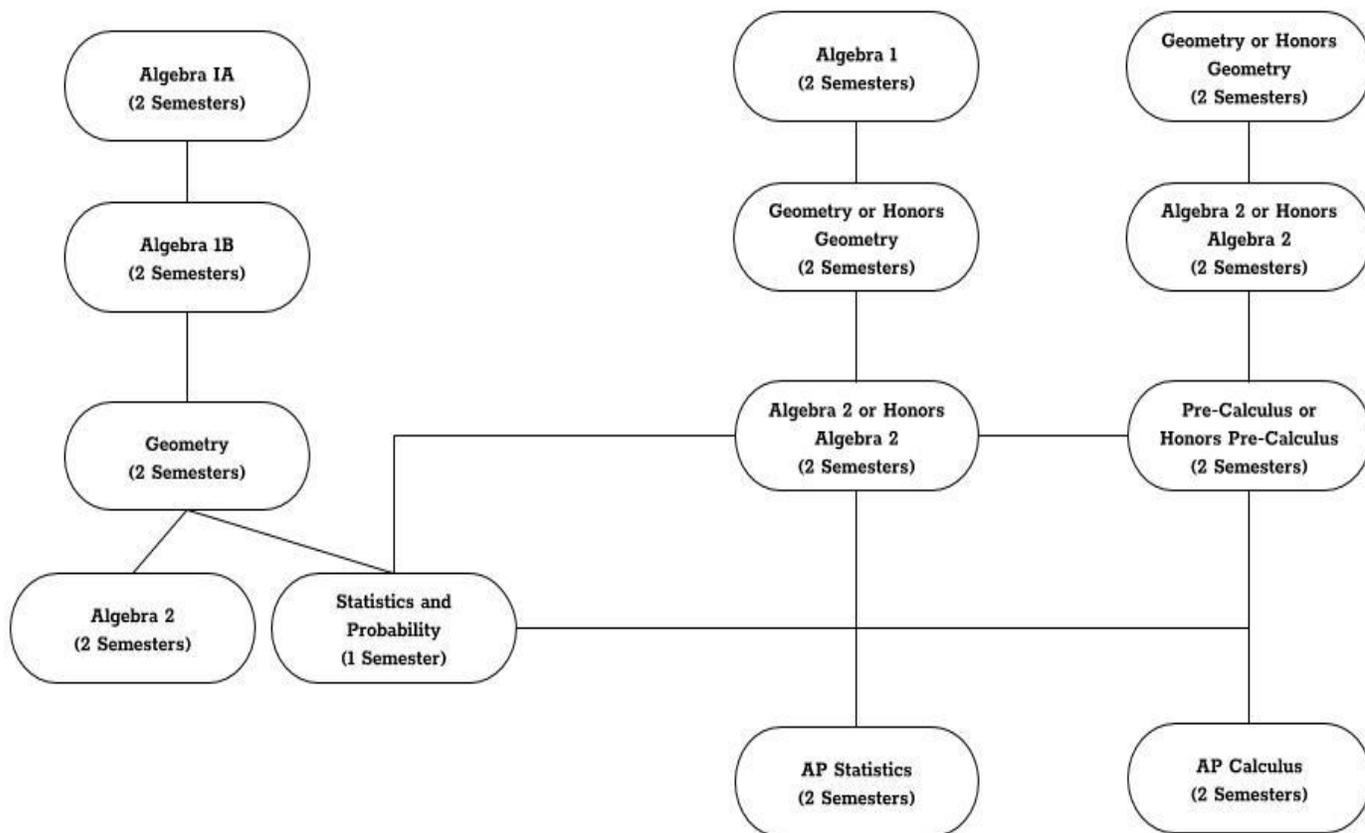
Mathematics

The math department at Clinton High School is filled with highly motivated instructors seeking to meet the needs of the future ready student. Students begin with a strong year-long foundation of algebra, move on to explore the world of geometry, solidify their algebra skills in Algebra 2, and then choose a class based on their individual interests. We are a highly collaborative group, constantly discussing and trading ideas for effective instruction. Through a mixture of teacher-led lessons and student-centered activities, we strive to make mathematics meaningful and relevant to the students' everyday lives. Many careers are centered on mathematics. The most common fields in which mathematicians find work are computer science and software development, physics, engineering, operations research, financial analysis, and life sciences research.

The following job titles are the positions mathematicians are most often recruited for:
Applied/Theoretical Mathematician, Climate Analyst, Cost Estimator, Cryptographer, Forensic Analyst, Information Scientist, Market Researcher, Numerical Analyst, Population Ecologist, Product Analyst, Professor/Teacher, Research Technician, Statistician, Systems Analyst



MATHEMATICS COURSE OFFERINGS



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Below is a listing of courses offered through the Mathematics Department. The graph indicates the course title, the grades that a student can take the offering, and the prerequisites for taking the class.

	Semesters	9 th Grade	10 th Grade	11 th Grade	12 th Grade	Prerequisite Courses
Algebra 1A	2	X	X	X		Teacher Recommendation
Algebra 1B	2		X	X	X	Teacher Recommendation, Algebra 1A, Algebra 1 (1st Semester)
Algebra 1	2	X	X	X	X	
Geometry	2	X	X	X	X	Algebra 1, Honors Math 8
Honors Geometry	2	X	X			Algebra 1, Honors Math 8, Teacher Recommendation
Statistics and Probability	1			X	X	Algebra 2
Algebra 2	2		X	X	X	Geometry
Honors Algebra 2	2		X	X		Geometry or Honors Geometry
Pre-Calculus	2			X	X	Algebra 2
Honors Pre-Calculus	2			X	X	Algebra 2 or Honors Algebra 2
Advanced Placement Calculus	2				X	Pre-Calculus or Honors Pre-Calculus
Advanced Placement Statistics	2			X	X	Algebra 2



MATHEMATICS

ALGEBRA 1A

Grade: 9, 10, 11

Semesters: 2

Credits: 2

Prerequisites: Teacher Recommendation

Course Description: Algebra 1A is the first class in a two year sequence which will cover all topics in a traditional one year Algebra 1 course. The slower pace will allow time for intervention and review of prerequisite skills as needed. Upon successfully completing Algebra 1A and Algebra 1B, the students will receive credit for Algebra 1. Algebra 1A covers creating and solving equations, interpreting the meaning of the components of basic algebraic expressions, solving basic systems of equations, creating and analyzing histograms and stem plots, and finding measures of center using statistics, creating and solving linear, exponential, or quadratic equations from situations using only specific methods, understanding functional relationships using tables, graphs, and equations, understanding the parts of polynomials, describing key features of graphs, and using units to solve problems.

ALGEBRA 1B

Grade: 10, 11, 12

Semesters: 2

Credits: 2

Prerequisites: Teacher Recommendation

Course Description: Algebra 1B is the 2nd year course of the 2 year sequence which will cover all topics in a traditional one year Algebra 1 course. The slower pace will allow time for intervention and review of prerequisite skills as needed. Upon successfully completing Algebra 1B, the students will receive credit for Algebra 1. Algebra 1B builds on the foundation of Algebra 1A and covers creating and solving equations and inequalities that represent relationships, interpreting the meaning of the components of algebraic expressions, solving systems of equations using multiple methods, creating and analyzing box plots and scatter plots, creating and solving linear, exponential, and quadratic equations from situations using multiple methods, understanding functional relationships using tables, graphs, and equations, solving equations with polynomials, describing key features of graphs and transformations of functions, and using units and conversions to solve problems.

ALGEBRA 1

Grade: 9, 10, 11, 12

Semesters: 2

Credits: 2

Prerequisites: None

Course Description: This course requires students to learn the basic structure and techniques in Algebra and how to apply concepts to a variety of mathematical situations. Emphasis is placed upon problem solving by means of logically organized solutions and structured set-ups. Algebra 1 lays the groundwork for future study in higher mathematics. Scientific calculator recommended.

GEOMETRY

Grade: 9, 10, 11, 12

Semesters: 2

Credits: 2

Prerequisites: Algebra 1, Honors Math 8

Course Description: This course is designed to introduce students to the logical structure of geometry, which includes definitions, postulates, and theorems. Through proofs and related activities, students will develop an appreciation of the relationship between algebra and geometry. Scientific calculator recommended.

HONORS GEOMETRY

Grade: 9, 10

Semesters: 2

Credits: 2

Prerequisites: Algebra 1, Honors Math 8, Teacher Recommendation

Course Description: This course is designed for the top students in Algebra 1 with a high geometry aptitude. All the topics of a regular geometry class are studied with greater depth and more deductive approach. Students must earn an A, B, or C to receive 5.0 scale credit. Students will be expected to complete the course final. Scientific calculator recommended.

STATISTICS AND PROBABILITY



Grade: 11, 12

Semesters: 2

Credits: 2

Prerequisites: Algebra 2

Course Description: AP Statistics covers the statistical process of collecting, analyzing, and drawing conclusions from data. The four main themes of this course include exploring data, sampling and experimentation, anticipating patterns, and statistical inference. In this course students will be required to use the vocabulary of statistics to describe data collection methods and to analyze and interpret data. Students will use TI-84 graphing calculators and computer software to explore and analyze data. It is highly recommended that students take the A.P. Statistics Exam to gain the full benefit of A.P. as a college-credit course. Students must earn an A, B, or C to receive 5.0 scale credit. Students will be expected to complete the course final OR the A.P. Exam. TI-83 or TI-84 graphing calculator recommended.

